Case 2855

Cristellaria humilis Reuss, 1863 (currently *Astacolus humilis*; Foraminiferida): proposed replacement of neotype by rediscovered lectotype, and *Rotalia schloenbachi* (currently *Notoplanulina? schloenbachi*; Foraminiferida): proposed placement on the Official List

Helen Meyn & Jürgen Vespermann

Institut für Geowissenschaften, Technische Universität Braunschweig, Pockelsstrasse 4, D-38106 Braunschweig, Germany

Abstract. The purpose of this application is to replace the neotype of the Cretaceous foraminifer *Astacolus humilis* (Reuss, 1863) with the lectotype designated from Reuss's collection recently rediscovered in the Naturhistorisches Museum, Vienna. It is proposed also to place the specific name of *Notoplanulina? schloenbachi* (Reuss, 1863) on the Official List.

---

1. In 1863 Reuss described a large number of foraminifera from the Cretaceous of North Germany. Two of his species, *Cristellaria humilis* and *Rotalia schloenbachi*, are here considered in turn. The Reuss collection was believed to have been lost but its rediscovery was announced by Papp, Rögl & Schmid (1977). We (Meyn & Vespermann, 1993) redescribed the material, which is in the Naturhistorisches Museum, Vienna. We now ask (para. 5 below) the Commission to rule that the neotype designated by Bartenstein (1974) (see para. 2 below) for *Cristellaria humilis* be replaced by the lectotype from the rediscovered Reuss collection.

Cristellaria humilis Reuss, 1863 (p. 65, pl. 6, figs. 16, 17)

2. Bartenstein (1974, p. 554, pl. 2, fig. 19) designated and figured a neotype from the basal Lower Hauterivian, N.W. Berklingen (Asse), the type locality of Reuss; it is registered as C 30173 in the Naturhistorisches Museum, Basle. We (Meyn & Vespermann, 1989) examined Reuss's rediscovered collection and (Meyn & Vespermann, 1993) propose as the lectotype the specimen figured by Reuss in pl. 6, fig. 16, which is registered as no. 970 in the Reuss collection. The lectotype is better preserved than the neotype. Even though the aperture of the lectotype is damaged, the apertural socket shows its rearwards-directed position. Reuss emphasized that his figure (pl. 6, fig. 16) characterized the 'typical form of the test' from the Berklingen area. We have topotypic samples from localities mentioned by Reuss and can make a direct comparison between the syntypes and our own material. The mode of preservation of the specimens and the faunal composition of the samples have enabled us to determine the stratigraphic horizon of the syntypes. *Cristellaria humilis* is from the lower Lower Hauterivian of Berklingen and the syntypes came from a sample of the calcareous marls which are found locally only in the eastern part of the Lower Saxony Basin. The 'Oberer Hilsthon' of Reuss does not necessarily correspond with the uppermost Hauterivian to Barremian as stated by Bartenstein (1974, pp. 541, 555). The 'tiefster oberer Hilsthon' of the Berklingen area (Reuss, 1863,

p. 9) is in fact Lower Hauterivian (see Meyn & Vespermann, 1987). The lectotype and neotype are conspecific so no change in the concept of the species would result from the replacement of the neotype by the lectotype.

3. Article 75h of the Code states that 'if, after the designation of a neotype, the ... lectotype ... is found still to exist, the case is to be referred to the Commission to rule whether the neotype is or is not to be retained as the name-bearing type'. We recommend that the neotype of *Cristellaria humilis* should not be retained as the name-bearing type.

Rotalia schloenbachi Reuss, 1863 (p. 84, pl. 10, fig. 5)

4. Crittenden & Price (1991, p. 254) designated a neotype for *Rotalia schloenbachi* from the same geographical area and the same geological formation (Gault Clay = Minimusthon) as Reuss's locality. The neotype is numbered BM(NH) P.52254 in the collections of the Natural History Museum in London. They considered in turn each of the qualifying conditions for a valid neotype designation given in Article 75d of the Code. However, they overlooked the fact that Reuss's collection had been rediscovered, as reported by Papp, Rögl & Schmid (1977) and by us (Meyn & Vespermann, 1989). It follows that their neotype designation was invalid. We (Meyn & Vespermann, 1993) propose a lectotype (no. 1685 in the Reuss collection). No Commission action is required to set aside Crittenden & Price's invalid neotype designation but we ask the Commission to place *Rotalia schloenbachi* on the Official List of Specific Names in Zoology as the most effective way of recording the situation.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to set aside the neotype designation for *Cristellaria humilis* Reuss, 1863 made by Bartenstein (1974);

(2) to place on the Official List of Specific Names in Zoology the following names:
   (a) *humilis* Reuss, 1863, as published in the binomen *Cristellaria humilis* and as defined by the lectotype proposed by Meyn & Vespermann (1993) (no. 970 in the Reuss collection);
   (b) *schloenbachi* Reuss, 1863, as published in the binomen *Rotalia schloenbachi* and as defined by the lectotype proposed by Meyn & Vespermann (1993) (no. 1685 in the Reuss collection).

References

Bartenstein, H. 1974. *Lenticulina* (*Lenticulina*) *nodosa* (Reuss 1863) and its subspecies — worldwide index foraminifera in the Lower Cretaceous. *Eclogae Geologicae Helvetiae*, **67**: 539–562.

Crittenden, S. & Price, R.J. 1991. The foraminiferid *Osangularia schloenbachi* (Reuss, 1863); the erection of a neotype. *Journal of Micropalaeontology*, **9**: 253–256.

Meyn, H. & Vespermann, J. 1987. Critical study of the type localities and type stages published by Koch 1851, Roemer 1841, 1842, and Reuss 1863 in the Lower Cretaceous of N.W. Germany. *Newsletters on Stratigraphy*, **18**: 7–19.

Meyn, H. & Vespermann, J. 1989. The Reuss Collection (Cretaceous foraminifers) in Vienna. *Journal of Paleontology*, **63**: 388.

Meyn, H. & Vespermann, J. 1993 [in press]. Taxonomische Revision von Foraminiferen der Unterkreide SE-Niedersachsens nach Roemer 1839, 1841, 1842, Koch 1851 und Reuss 1863. *Courier des Forschungsinstituts Senckenberg*.

Papp, A., Rögl, F. & Schmid, M.E. 1977. Zur Kenntnis des Originalmaterials Hauer — d'Orbigny 1846. *Verhandlungen der Geologischen Bundesanstalt*, **1977**: 69–77.

Reuss, A.E. 1863. Die Foraminiferen des norddeutschen Hils und Gault. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Classe*, **46**(1): 5–100.